

UVA COVID-19 MODEL WEEKLY UPDATE



July 9th, 2021

KEY TAKEAWAYS

- The Delta variant is likely dominant in Virginia, or will be soon, creating increased risk for unvaccinated individuals and communities with low vaccination rates.
- First dose vaccinations have plateaued, and show early signs of rising during the first week of July, following earlier declines.
- Cases have ceased their decline in most health districts. Several
 health districts have entered slow growth trajectories, and one is in
 a surge trajectory. This is consistent with cases plateauing at very
 low levels.

2 per 100k

Average Daily Cases Week Ending June 27, 2021

6 per 100k

Potential Peak Average Delta Variant Scenario Daily Cases, Week Ending September 5, 2021

7,153

Average Daily 1st Doses June 20, 2021

9,101

Average Daily 2nd Doses June 20, 2021

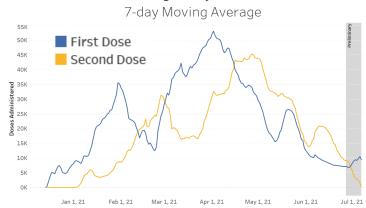
KEY FIGURES

Reproduction Rate (Based on Confirmation Date)

Region	R _e July 6th	Weekly Change
Statewide	0.863	-0.258
Central	1.091	-0.089
Eastern	0.942	-0.076
Far SW	0.969	-0.147
Near SW	0.398	-0.812
Northern	0.814	-0.285
Northwest	0.972	0.031

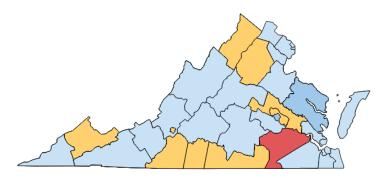
Vaccine Administrations

Average Daily Doses:



Growth Trajectories: 1 Health District in Surge

Status	# Districts (prev week)
Declining	2 (4)
Plateau	23 (30)
Slow Growth	9 (1)
In Surge	1 (0)







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THE MODEL

The UVA COVID-19 Model and the weekly results are provided by the UVA Biocomplexity Institute, which has over 20 years of experience crafting and analyzing infectious disease models. It is a (S)usceptible, (E)xposed, (I)nfected, (R)ecovered epidemiologic model designed to evaluate policy options and provide projections of future cases based on the current course of the pandemic.

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THE PROJECTIONS

The UVA team continues to improve the model. The UVA model uses an "adaptive fitting" methodology, where the model traces past and current trends and uses that information to predict future cases at the local level. Since the B.1.1.7 Variant has become dominant, the model includes increased transmission and severity associated with this Variant of Concern. The "Delta" scenarios adds the known effects of the Delta Variant of Concern to transmission rates. The model incorporates projections on the impact of vaccines, including current vaccinations and the stalled rate of vaccine uptake. The "VaxOpt" scenarios show the impact of vaccine acceptance increasing to 85% of the adult population.

MODEL RESULTS

On the current course, the model estimates a small bump in cases over the next few weeks, albeit from a low level. At such low case levels, this could simply be noise. However, vaccination rates are still below herd immunity levels, many Virginians are returning to normal, and the Delta variant is beginning to to spread in Virginia. With the Delta variant, it is likely cases could reach a sustained peak with 6 average daily cases per 100,000 beginning in August and lasting well into the fall. To lessen the projected peak, we must give vaccines time to have an impact, especially as the Delta variant spreads in Virginia. Do your part to stop the spread. Continue to practice good prevention and get vaccinated when eligible.

